

What is claimed is:

1 1. A brazed bonded structure comprising:
2 an Al component;
3 a Cu component; and
4 Ag as an insert material between the Al component and the Cu component,
5 wherein an Ag layer remains in the interlayer between the Al component and the Cu
6 component after brazing and bonding the Al-Cu component.

1 2. An Al-Cu bonded structure according to claim 1 wherein said remaining Ag layer
2 has a thickness of 10 μ m or more.

1 3. A method of making an Al-Cu bonded structure comprising:
2 brazing an Al component and an Cu component with Ag used as an insert material
3 between the Al component and Cu component, wherein a layer of said Ag is made to
4 remain between the Al-Cu components.

1 4. A method of making an Al-Cu bonded structure comprising:
2 brazing an Al component and an Cu component with Ag used as an insert material
3 between the Al component and Cu component, wherein said brazing is performed at a
4 temperature of more than 813 K (540 deg C), and a layer of said Ag is made to remain
5 between the Al-Cu components.

1 5. A method of making an Al-Cu bonded structure according to claim 4 wherein,
2 when said insert material has a thickness of 100 microns, said brazing is performed at a
3 temperature of 823 K +/- 5K (550 deg C +/- 5 deg C) with a brazing time of no more than
4 1800 sec, and a layer of said Ag is made to remain between the Al-Cu components.

1 6. A method of making an Al-Cu bonded structure according to claim 3 or claim 4
2 wherein said remaining Ag layer has a thickness of 10 μ m or more.

1 7. A thin Al-Cu bonded structure comprising:
2 an Al component;
3 a Cu component; and
4 Ag as an insert material in the interlayer between the Al component and the Cu
5 component,
6 wherein the resultant Al-Cu brazed bonded component is rolled to produce the Al-
7 Cu bonded structure.

1 8. A thin Al-Cu bonded structure as described in claim 7 wherein hot rolling is
2 performed on said Al-Cu brazed bonded component.

1 9. A thin Al-Cu bonded structure as described in claim 7 or claim 8 wherein said
2 structure has a thickness of 0.1 mm or more.

1 10. A method of making a thin Al-Cu bonded structure comprising:
2 providing a brazed bonded component comprising an Al component, a Cu
3 component, and Ag as an insert material in the interlayer between the Al component and
4 the Cu component; and
5 rolling the brazed bonded component.

1 11. A method for making a thin Al-Cu bonded structure according to claim 10
2 wherein said rolling is performed as hot rolling.

1 12. A method for making a thin Al-Cu bonded structure according to claim 11
2 wherein said hot rolling is performed at 623 K - 773 K (350 deg C - 550 deg C).

1 13. A method of making a thin Al-Cu bonded structure according to claim 11 or
2 claim 12 wherein when said hot rolling is repeated such that a reduction at each rolling is
3 20% +/- 10%.

1 14. A method of making a thin Al-Cu bonded structure according to any one of
2 claims 10 – 12, further comprising:
3 annealing the brazed bonded component after finishing said hot rolling.